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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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SHAIFER HARRIMAN, DANT B

ART UNIT	PAPER NUMBER
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2134

NOTIFICATION DATE	DELIVERY MODE
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03/27/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/803,955	<b>Applicant(s)</b> YACHIDA, MASUYOSHI	
	<b>Examiner</b> DANT B. SHAFER HARRIMAN	<b>Art Unit</b> 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/21/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 2 is objected to because of the following informalities: the examiner notes that there is a word misspelled, is “wit,” which should be “with.” Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1 – 20 & 22 – 33 & 35 – 37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical

compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*. The examiner notes the claims above are merely software *per se*., which is clearly not a statutory subject matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim(s) 1 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSAWA (10 – 305528) in view of Miyajima (2001 - 075095).

OSAWA discloses:

1. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- a setting part which is set with a predetermined maintenance range in which the maintenance is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

2. The electronic equipment as claimed in claim 1, wherein said

- setting part is preset with a maintenance range for each maintenance person (Paragraph: 0045).

9. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- a setting part to set in advance a maintenance range in which the maintenance of the equipment is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

22. An equipment maintenance method for controlling a maintenance range in which maintenance of an equipment may be performed, comprising the steps of:

(a) setting in advance a maintenance range in which the maintenance of the equipment is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

35. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- setting means set with a predetermined maintenance range in which the maintenance is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

37. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- setting means for setting in advance a maintenance range in which the maintenance of the equipment is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

38. A computer-readable storage medium which stores a program for causing a computer to set a maintenance range which specifies parts of an electronic equipment which may be subjected to maintenance, said program comprising:

- a setting procedure causing the computer to be set with a predetermined maintenance range in which the maintenance is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

40. A computer-readable storage medium which stores a program for causing a computer to control a maintenance range in which maintenance of an equipment may be performed, said program comprising:

- a setting procedure causing the computer to set in advance a maintenance range in which the maintenance of the equipment is permitted (Paragraph: 0016, 0028, 0029, 0045, 0047, 0052, 0057);

OSAWA does not explicitly disclose:

1. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- an authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment; and
  - a changing part to temporarily change the predetermined maintenance range set in said setting part, in response to a change instruction, when said authenticating part authenticates the validity of the maintenance-attending person.
3. The electronic equipment as claimed in claim 1, wherein said
- authenticating part authenticates the validity of the maintenance-attending person using an authenticating medium which stores authentication information of the maintenance-attending person.
4. The electronic equipment as claimed in claim 1, wherein said
- changing part adds a maintenance range specified by the change instruction only for a period of time specified by the change instruction, with respect to the predetermined maintenance range.
5. The electronic equipment as claimed in claim 1, wherein said
- setting part is also set with a predetermined management range in which management is permitted, and said changing part also temporarily changes the predetermined management range set in said setting part, in response to the change instruction, when said authenticating part authenticates the validity of the maintenance-attending person.



6. The electronic equipment as claim 1, further comprising:

- an input part to permit input of the change instruction by an operator whose validity is authenticated.

7. An equipment managing apparatus for controlling an electronic equipment which includes a setting part which is set with a predetermined maintenance range in which maintenance is permitted, a first authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment, and a changing part to temporarily change the predetermined maintenance range set in the setting part in response to a change instruction when the first authenticating part authenticates the validity of the maintenance-attending person, said equipment managing apparatus comprising:

- a second authenticating part to authenticate validity of an operator of the equipment managing apparatus;
- an input part to permit input of the change instruction when the second authenticating part authenticates the validity of the operator; and
- a part to supply the change instruction input from said input part to the electronic equipment.

8. The equipment managing apparatus as claimed in claim 7, wherein

- said second authenticating part authenticates the validity of the operator using an authenticating medium which stores authentication information of the operator.

9. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- a first authenticating part to authenticate validity of a maintenance-attending person for the equipment; and
- a changing part to temporarily change the set maintenance range to a predetermined maintenance range based on an authentication result of said first authenticating part, so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range.

10. The equipment maintenance system as claimed in claim 9, wherein said

- setting part is provided within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment.

11. The equipment maintenance system as claimed in claim 9, wherein

- said changing part is provided within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment.

12. The equipment maintenance system as claimed in claim 11, wherein

- said changing part is provided in an apparatus within the maintenance service provider, and said apparatus is communicatable with the equipment via a network.

13. The equipment maintenance system as claimed in claim 11, wherein

- said changing part is provided in an apparatus within the maintenance service provider or, provided within the equipment, and said apparatus is communicatable with the equipment via a network.

14. The equipment maintenance system as claimed in claim 9, further comprising:

- a second authenticating part to authenticate validity of an operator of said changing part.

15. The equipment maintenance system as claimed in claim 14, wherein

- said second authenticating part authenticates the validity of the operator using an authenticating medium which stores authentication information of the operator.

16. The equipment maintenance system as claimed in claim 9, wherein

- said first authenticating part authenticates the validity of the maintenance- attending person using an authenticating medium which stores authentication information of a maintenance person.

17. The equipment maintenance system as claimed in claim 9, wherein

- said setting part sets in advance a maintenance range for each maintenance person.

18. The equipment maintenance system as claimed in claim 9, further comprising:

- a maintenance part to perform maintenance of the equipment within the predetermined maintenance range.

19. The equipment maintenance system as claimed in claim 18, wherein

- said maintenance part is provided in an apparatus within a maintenance service provider which provides maintenance services for the equipment, and said apparatus is communicatable with the equipment via a network to perform remote maintenance of the equipment.

20. The equipment maintenance system as claimed in claim 18, wherein

- said maintenance part is provided within an apparatus in a setup site of the equipment or, within the equipment, and said apparatus is communicatable with the equipment via a network.

21. The equipment maintenance system as claimed in claim 9, wherein

- the equipment is selected from a group consisting of information processing apparatus, office automation (OA) equipment, point-of sales (POS) terminal equipment, medical equipment, vending machine, electrical home appliance, and portable terminal equipment.

22. An equipment maintenance method for controlling a maintenance range in which maintenance of an equipment may be performed, comprising the steps of:

(a) setting in advance a maintenance range in which the maintenance of the equipment is permitted;

(b) authenticating validity of a maintenance-attending person for the equipment; and

(c) temporarily changing the set maintenance range to a predetermined maintenance range based on an authentication result of said step (b), so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range.

23. The equipment maintenance method as claimed in claim 22, wherein said step

(a) is performed within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment.

24. The equipment managing method as claimed in claim 22, wherein said step

(c) is carried out within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment.

25. The equipment managing method as claimed in claim 24, wherein said step

(c) is carried out in an apparatus within the maintenance service provider, and said apparatus is communicatable with the equipment via a network.

26. The equipment maintenance method as claimed in claim 24, wherein said step

(c) is carried out in an apparatus within the maintenance service provider or, provided within the equipment, and said apparatus is communicatable with the equipment via a, network.

27. The equipment maintenance method as claimed in claim 22, further comprising the steps of:

(d) authenticating validity of an operator of said changing part.

28. The equipment maintenance method as claimed in claim 27, wherein said step

(d) authenticates the validity of the operator, using an authenticating medium which stores authentication information of the operator.

29. The equipment maintenance method as claimed in claim 22, wherein said step



(b) authenticates the validity of the maintenance-attending person using an authenticating medium which stores authentication information of a maintenance person.

30. The equipment maintenance method as claimed in claim 22, wherein said step

(a) sets in advance a maintenance range for each maintenance person.

31. The equipment maintenance method as claimed in claim 22, further comprising the steps of:

(e) carrying out maintenance of the equipment within the predetermined maintenance range.

32. The equipment maintenance method as claimed in claim 31, wherein said step

(e) is carried out in an apparatus within a maintenance service provider which provides maintenance services for the equipment, and said apparatus is communicatable with

the equipment via a network to perform remote maintenance of the equipment.

33. The equipment maintenance method as claimed in claim 31, wherein said step

(e) is carried out within an apparatus in a setup site of the equipment or, within the equipment, and said apparatus is communicatable with the equipment via a network.

34. The equipment maintenance method as Claimed in claim 22, wherein

- the equipment is selected from a group consisting of information processing apparatus, office automation (OA) equipment, point-of sales (POS) terminal equipment, medical equipment, vending machine, electrical home appliance, and portable terminal equipment.

35. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- setting means set with a predetermined maintenance range in which the maintenance is permitted;
- authenticating means for authenticating validity of a maintenance-attending person for the electronic equipment; and
- changing means for temporarily changing the predetermined maintenance range set in said setting means, in response to a change instruction, when said authenticating means authenticates the validity of the maintenance-attending person.

36. An equipment managing apparatus for controlling an electronic equipment which includes setting means set with a predetermined maintenance range in which maintenance-is permitted, first authenticating means for authenticating validity of a maintenance-attending person for the electronic equipment, and changing means for temporarily changing the predetermined maintenance range set in the setting part in response to a change instruction when the first authenticating means authenticates the validity of the maintenance-attending person, said equipment managing apparatus comprising:

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- second authenticating means for authenticating validity of an operator of the equipment managing apparatus;
- input means for permitting input of the change instruction when the second authenticating means authenticates the validity of the operator; and
- means for supplying the change instruction input from said input means to the electronic equipment.

37. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- setting means for setting in advance a maintenance range in which the maintenance of the equipment is permitted;
- authenticating means for authenticating validity of a maintenance-attending person for the equipment; and
- changing means for temporarily changing the set maintenance range to a predetermined maintenance range based on an authentication result of said authenticating means, so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range.

38. A computer-readable storage medium which stores a program for causing a computer to set a maintenance range which specifies parts of an electronic equipment which may be subjected to maintenance, said program comprising:

- a setting procedure causing the computer to be set with a predetermined maintenance range in which the maintenance is permitted;
- an authenticating procedure causing the computer to authenticate validity of a maintenance-attending person for the electronic equipment; and
- a changing procedure causing the computer to temporarily change the predetermined maintenance range set in said setting procedure, in response to a change instruction, when said authenticating procedure authenticates the validity of the maintenance-attending person.

39. A computer-readable storage medium which stores a program for causing a computer to manage an electronic equipment which includes a setting part set

with a predetermined maintenance range in which maintenance is permitted, an authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment, and a changing part to temporarily change the predetermined maintenance range set in the setting part in response to a change instruction when the authenticating part authenticates the validity of the maintenance-attending person, said program comprising:

- an authenticating procedure causing the computer to authenticate validity of an operator of the computer;
- an input procedure causing the computer to permit input of the change instruction when the authenticating procedure authenticates the validity of the operator; and
- a procedure causing the computer to supply the change instruction input by said input procedure to the electronic equipment.

40. A computer-readable storage medium which stores a program for causing a computer to control a maintenance range in which maintenance of an equipment may be performed, said program comprising:

- a setting procedure causing the computer to set in advance a maintenance range in which the maintenance of the equipment is permitted;
- an authenticating procedure causing the computer to authenticate validity of a maintenance-attending person for the equipment; and
- a changing procedure causing the computer to temporarily change the set maintenance range to a predetermined maintenance range based on an authentication result of said authenticating procedure, so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range.

However, Miyajima discloses:

1. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- an authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and
- a changing part to temporarily change the predetermined maintenance range set in said setting part,

in response to a change instruction, when said authenticating part authenticates the validity of the maintenance-attending person (Paragraphs: 0018, 0081).

3. The electronic equipment as claimed in claim 1, wherein said

- authenticating part authenticates the validity of the maintenance-attending person using an authenticating medium which stores authentication information of the maintenance-attending person (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 & 0047, 0127, 0128).

4. The electronic equipment as claimed in claim 1, wherein said

- changing part adds a maintenance range specified by the change instruction only for a period of time specified by the change instruction, with respect to the predetermined maintenance range (Paragraphs: 0047, 0127, 0128).

5. The electronic equipment as claimed in claim 1, wherein said

- setting part is also set with a predetermined management range in which management is permitted, and said changing part also temporarily changes the predetermined management range set in said setting part, in response to the change instruction, when said authenticating part authenticates the validity of the maintenance-attending person (Paragraphs: 0132, 0133, 0042, 0021).

6. The electronic equipment as claim 1, further comprising:



- an input part to permit input of the change instruction by an operator whose validity is authenticated (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 ).

7. An equipment managing apparatus for controlling an electronic equipment which includes a setting part which is set with a predetermined maintenance range in which maintenance is permitted, a first authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment, and a changing part to temporarily change the predetermined maintenance range set in the setting part in response to a change instruction when the first authenticating part authenticates the validity of the maintenance-attending person, said equipment managing apparatus comprising:

- a second authenticating part to authenticate validity of an operator of the equipment managing apparatus (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138);
- an input part to permit input of the change instruction when the second authenticating part authenticates the validity of the operator (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and

- a part to supply the change instruction input from said input part to the electronic equipment (Paragraph: 0014).

8. The equipment managing apparatus as claimed in claim 7, wherein

- said second authenticating part authenticates the validity of the operator using an authenticating medium which stores authentication information of the operator (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 & 0047, 0127, 0128, the examiner interprets medium as a database that is in a server or computer).

9. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- a first authenticating part to authenticate validity of a maintenance-attending person for the equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and

- a changing part to temporarily change the set maintenance range to a predetermined maintenance range based on an authentication result of said first authenticating part, so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range (Paragraphs: 0018, 0081).

10. The equipment maintenance system as claimed in claim 9, wherein said

- setting part is provided within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment (Paragraph: 0010, 0011, 0007).

11. The equipment maintenance system as claimed in claim 9, wherein

- said changing part is provided within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment (Paragraph: 0010, 0011, 0007).

12. The equipment maintenance system as claimed in claim 11, wherein

- said changing part is provided in an apparatus within the maintenance service provider, and said apparatus is communicatable with the equipment via a network (Paragraph: 0014 & 0012).

13. The equipment maintenance system as claimed in claim 11, wherein

- said changing part is provided in an apparatus within the maintenance service provider or, provided within the equipment, and said apparatus is communicatable with the equipment via a network (Paragraph: 0014 & 0012).

14. The equipment maintenance system as claimed in claim 9, further comprising:

- a second authenticating part to authenticate validity of an operator of said changing part (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138).

15. The equipment maintenance system as claimed in claim 14, wherein

- said second authenticating part authenticates the validity of the operator using an authenticating medium which stores authentication information of the operator (Paragraphs: 0067, 0068, 0078, 0084 ).

16. The equipment maintenance system as claimed in claim 9, wherein

- said first authenticating part authenticates the validity of the maintenance- attending person using an authenticating medium which stores authentication information of a maintenance person (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 & 0067, 0068, 0078, 0084 & 0047, 0127, 0128 ).

17. The equipment maintenance system as claimed in claim 9, wherein

- said setting part sets in advance a maintenance range for each maintenance person(Paragraph: 0021, 0023, 0041, 0042).

18. The equipment maintenance system as claimed in claim 9, further comprising:

- a maintenance part to perform maintenance of the equipment within the predetermined maintenance range (Paragraph: 0021, 0023, 0041, 0042).

19. The equipment maintenance system as claimed in claim 18, wherein

- said maintenance part is provided in an apparatus within a maintenance service provider which provides maintenance services for the equipment, and said apparatus is communicatable with the equipment via a network to perform remote maintenance of the equipment (Paragraph: 0014 & 0012).

20. The equipment maintenance system as claimed in claim 18, wherein

- said maintenance part is provided within an apparatus in a setup site of the equipment or, within the equipment, and said apparatus is communicatable with the equipment via a network (Paragraph: 0014 & 0012).

21. The equipment maintenance system as claimed in claim 9, wherein

- the equipment is selected from a group consisting of information processing apparatus, office automation (OA) equipment, point-of sales (POS) terminal equipment, medical equipment, vending machine, electrical home appliance, and portable terminal equipment (Paragraph: 0010, 0011).

22. An equipment maintenance method for controlling a maintenance range in which maintenance of an equipment may be performed, comprising the steps of:

(b) authenticating validity of a maintenance-attending person for the equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and

(c) temporarily changing the set maintenance range to a predetermined maintenance range based on an authentication result of said step (b), so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range (Paragraphs: 0018, 0081).

23. The equipment maintenance method as claimed in claim 22, wherein said step

(a) is performed within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment (Paragraph: 0010, 0011, 0007).

24. The equipment managing method as claimed in claim 22, wherein said step

(c) is carried out within a maintenance service provider which provides maintenance services for the equipment or, within a setup site of the equipment (Paragraph: 0010, 0011, 0007).

25. The equipment managing method as claimed in claim 24, wherein said step

(c) is carried out in an apparatus within the maintenance service provider, and said apparatus is communicatable with the equipment via a network (Paragraph: 0014 & 0012).



26. The equipment maintenance method as claimed in claim 24, wherein said step

(c) is carried out in an apparatus within the maintenance service provider or, provided within the equipment, and said apparatus is communicatable with the equipment via a, network (Paragraph: 0014 & 0012).

27. The equipment maintenance method as claimed in claim 22, further comprising the steps of:

(d) authenticating validity of an operator of said changing part (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138).

28. The equipment maintenance method as claimed in claim 27, wherein said step

(d) authenticates the validity of the operator using an authenticating medium which stores authentication information of the operator (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 & 0067, 0068,

0078, 0084 & 0047, 0127, 0128, the examiner interprets medium as a database that is integrated into a server).

29. The equipment maintenance method as claimed in claim 22, wherein said step

(b) authenticates the validity of the maintenance-attending person using an authenticating medium which stores authentication information of a maintenance person (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138 & 0067, 0068, 0078, 0084 & 0047, 0127, 0128, the examiner interprets medium as a database that is integrated into a server).

30. The equipment maintenance method as claimed in claim 22, wherein said step

(a) sets in advance a maintenance range for each maintenance person (Paragraph: 0021, 0023, 0041, 0042).

31. The equipment maintenance method as claimed in claim 22, further comprising the steps of:

(e) carrying out maintenance of the equipment within the predetermined maintenance range (Paragraph: 0021, 0023, 0041, 0042).

32. The equipment maintenance method as claimed in claim 31, wherein said step

(e) is carried out in an apparatus within a maintenance service provider which provides maintenance services for the equipment, and said apparatus is communicatable with the equipment via a network to perform remote maintenance of the equipment (Paragraph: 0014 & 0012).

33. The equipment maintenance method as claimed in claim 31, wherein said step

(e) is carried out within an apparatus in a setup site of the equipment or, within the equipment, and said apparatus is communicatable with the equipment via a network (Paragraph: 0014 & 0012).

34. The equipment maintenance method as Claimed in claim 22, wherein

- the equipment is selected from a group consisting of information processing apparatus, office automation (OA) equipment, point-of sales (POS) terminal equipment, medical equipment, vending machine, electrical home appliance, and portable terminal equipment (Paragraph: 0010, 0011).

35. An electronic equipment having parts which may be subjected to maintenance and are specified by a maintenance range, comprising:

- authenticating means for authenticating validity of a maintenance-attending person for the electronic equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and
- changing means for temporarily changing the predetermined maintenance range set in said setting means, in response to a change instruction, when said authenticating means authenticates the validity of the maintenance-attending person (Paragraphs: 0018, 0081).

36. An equipment managing apparatus for controlling an electronic equipment which includes setting means set with a predetermined maintenance range in which maintenance-is permitted, first authenticating means for authenticating validity of a maintenance-attending person for the electronic equipment, and changing means for temporarily changing the predetermined maintenance range set in the setting part in response to a change instruction when the first authenticating means authenticates the validity of the maintenance-attending person, said equipment managing apparatus comprising:

- second authenticating means for authenticating validity of an operator of the equipment managing apparatus (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138);
- input means for permitting input of the change instruction when the second authenticating means authenticates the validity of the operator (Paragraph: 0014); and
- means for supplying the change instruction input from said input means to the electronic equipment (Paragraph: 0014).

37. An equipment maintenance system for controlling a maintenance range in which maintenance of an equipment may be performed, comprising:

- authenticating means for authenticating validity of a maintenance-attending person for the equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and
- changing means for temporarily changing the set maintenance range to a predetermined maintenance range based on an authentication result of said authenticating means, so that the maintenance of the equipment is temporarily permitted within the predetermined maintenance range (Paragraphs: 0018, 0081).

38. A computer-readable storage medium which stores a program for causing a computer to set a maintenance range which specifies parts of an electronic equipment which may be subjected to maintenance, said program comprising:

- an authenticating procedure causing the computer to authenticate validity of a maintenance-attending person

for the electronic equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and

- a changing procedure causing the computer to temporarily change the predetermined maintenance range set in said setting procedure, in response to a change instruction, when said authenticating procedure authenticates the validity of the maintenance-attending person (Paragraphs: 0018, 0081).

39. A computer-readable storage medium which stores a program for causing a computer to manage an electronic equipment which includes a setting part set with a predetermined maintenance range in which maintenance is permitted, an authenticating part to authenticate validity of a maintenance-attending person for the electronic equipment, and a changing part to temporarily change the predetermined maintenance range set in the setting part in response to a change instruction when the authenticating part authenticates the validity of the maintenance-attending person, said program comprising:

- an authenticating procedure causing the computer to authenticate validity of an operator of the computer (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138);

- an input procedure causing the computer to permit input of the change instruction when the authenticating procedure authenticates the validity of the operator (Paragraph: 0018);  
and
- a procedure causing the computer to supply the change instruction input by said input procedure to the electronic equipment (Paragraph: 0018).

40. A computer-readable storage medium which stores a program for causing a computer to control a maintenance range in which maintenance of an equipment may be performed, said program comprising:

- an authenticating procedure causing the computer to authenticate validity of a maintenance-attending person for the equipment (Paragraph: 0018, 0020, 0030, 0031, 0037, 0041, 0072, 0073, 0129, 0138); and
- a changing procedure causing the computer to temporarily change the set maintenance range to a predetermined maintenance range based on an authentication result of said authenticating procedure, so that the maintenance of the equipment is temporarily



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permitted within the predetermined maintenance range  
(Paragraphs: 0018, 0081).

OSAWA and Miyajima are analogous art because they are from the “same field of endeavor,” which is the field of remote secure repair maintenance of an electronic device.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of OSAWA and Miyajima before him or her, to modify the repair of a electronic device by remote secure servicing utility by a repair person of OSAWA to include the repair of a electronic device by remote secure servicing utility by a authenticated repair person of Miyajima.

The suggestion/motivation for doing so would have been to allow for a authenticated user or operator to have restricted access to

the servicing of a electronic device over the network, Paragraph:  
0007 of Miyajima.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANT B. SHAFER HARRIMAN whose telephone number is (571)272-7910. The examiner can normally be reached on Monday - Thursday: 8:00am - 5:30pm Alt.Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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